



S P E C I F I C A T I O N
TITLE OF THE INVENTION

WEATHER STATION

BACKGROUND OF THE INVENTION

5 The present invention relates to methods and devices for generating environmental data.

An object of the present invention is to produce a simple, efficient, low-cost recording of data relating to the environment of a device (hereinafter, referred to as environmental data).

10 **SUMMARY OF THE INVENTION**

The present invention enables recording of location-dependent environmental data (differing at a number of locations) with a maximum recording density of the environmental data on the order of magnitude of the base station density of any given mobile radio network; such as a GSM or UMTS mobile radio network.

15 According to the present invention, integration of sensors for recording environmental data into the base station of a telecommunications network is carried out for this purpose. Environmental data are any given data relating to the environment of a device which records them; in particular, weather data, pollen information, air pollution data, etc. An environmental data recording device may include sensors; in particular, for air pressure and/or temperature and/or pollen densities and/or the UV index and/or ozone concentrations and/or wind strength. For this purpose, a wide range of known sensors can be used including, for example, cameras.

20 25 A physically and/or functionally integrated arrangement according to the present invention of an environmental data recording device in, or connected on, a base station, in particular the connection to its connection infrastructure, may be particularly advantageous insofar as a power supply and data lines are already available in a base station and planning permission (on buildings, bridges, etc.) for

erection of the base station has already been agreed between a mobile radio network operator and a building owner, etc.

5 In a simple and efficient manner, the present invention enables location-dependent generation by the base station(s) of a wide range of environmental data (location-dependent content production) which can be sold on immediately or after editing. The generated environmental data are directly available to the operator of a mobile radio network (and its base stations) for further use.

10 The tightly-meshed network of base stations of a mobile telecommunications network enables tightly-meshed environmental data recording in the area of a mobile telecommunications network.

15 The environmental data can be forwarded as content either immediately or following further processing (intelligent content processing); in particular, by the mobile radio network service provider. The data may be forwarded to terminal devices as a broadcast (forecast) to all or some subscribers in mobile radio cells or mobile radio cell groups, or point-to-point to mobile radio subscribers or to content service providers for further forwarding by the latter to terminal devices (of content buyers).

20 Particularly advantageous is the offering of a push service according to a customer profile for content purchasers; in particular, mobile radio subscribers with mobile radio terminal devices.

Additional features and advantages of the present invention are described in, and will be apparent from, the following Detailed Description of the Invention and the Figures.

BRIEF DESCRIPTION OF THE FIGURES

25 Fig. 1 schematically shows environmental data recording according to the teachings of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Figure 1 shows a weather station disposed in a base station 1 of a mobile radio network 3, whose sensors 2 (here, by way of an example, UV sensors and air pollution sensors) record environmental data. These environmental data are

forwarded to a service provider 4, e.g. the provider of the mobile radio network (in whose base stations the sensors are located) or a further service provider supplied by the latter with data. The further service provider forwards environmental data or data generated therefrom via the mobile radio network, the fixed network or the

5 Internet (e.g., via html, wml, xml, etc.) to mobile radio terminal devices 5 ("User A" in Figure 1) or other terminal devices of recipients (here, time-based, etc., according to their customer profile "Profile A" or "Profile B" or "Profile X"), at their request (pull), or unrequested (push, e.g. at times defined in the customer profile of a terminal device user, etc.).

10 Data may be transmitted to terminal devices point-to-point (e.g., via SMS PtP) or as a broadcast (e.g., as a cell broadcast, SMS-CB, etc.).

15 Although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be made thereto without departing from the spirit and scope of the invention as set forth in the hereafter appended claims.